IAP3 REC'O PCTIPTO 28 DEC 2003

PTO-1390 (Rev. 07-2005)
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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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| TR  | ANSMITTAL LETTER TO   | ATTORNEY'S DOCKET NUMBER                        |  |  |  |  |  |  |  |
|---|---|---|--|--|--|--|--|--|--|
| DESIGNATED/ELECTED OFFICE (DO/EO/US)  |   |   | U.S. APPLICATION NO. (Mikingwift, see 37, QFR 1-6) |  |  |  |  |  |  |
|   | ICERNING A SUBMISSIC  |   | Not yet assigned 75 0 25 21                        |  |  |  |  |  |  |
|   | TIONAL APPLICATION NO.<br>R2004/001798  | INTERNATIONAL FILING DATE July 8, 2004          | PRIORITY DATE CLAIMED July 11, 2003                |  |  |  |  |  |  |
| TITLE OF  | Perovskite mate   | use in a catalytic membrane reactor             |  |  |  |  |  |  |  |
| APPLICANT(S) FOR DO/EO/US L'Air Liquide, Société Anonyme à Directoire et Conseil de Surveillance pour l'Etude et l'Exploitation des Procédés Georges Claude |   |   |  |  |  |  |  |  |  |
| Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:                             |   |   |  |  |  |  |  |  |  |
| 1.  | 1. This is a FIRST submission of items concerning a submission under 35 U.S.C. 371.   |   |  |  |  |  |  |  |  |
| 2. 🔲  | This is a SECOND or SUBSEQUENT submission of items concerning a submission under 35 U.S.C. 371.   |   |  |  |  |  |  |  |  |
| 3.  | This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below. |   |  |  |  |  |  |  |  |
|   | The US has been elected (Article 31).   |   |  |  |  |  |  |  |  |
| 5.  | A copy of the International Application as filed (35 U.S.C. 371(c)(2))  |   |  |  |  |  |  |  |  |
|   | a. X is attached hereto (required only if not communicated by the International Bureau).  |   |  |  |  |  |  |  |  |
|   | b. has been communicated by the International Bureau.   |   |  |  |  |  |  |  |  |
| <b>K</b> Z1   | c. is not required, as the application was filed in the United States Receiving Office (RO/US).   |   |  |  |  |  |  |  |  |
| 6. 🔀  | An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)).  |   |  |  |  |  |  |  |  |
|   | a. X is attached hereto.  |   |  |  |  |  |  |  |  |
| $\Box$  | b.  has been previously submit  | tted under 35 U.S.C. 154(d)(4).                 |  |  |  |  |  |  |  |
| 7.  | Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))  |   |  |  |  |  |  |  |  |
|   | a. are attached hereto (required only if not communicated by the International Bureau).   |   |  |  |  |  |  |  |  |
|   | b. have been communicated by the International Bureau.  |   |  |  |  |  |  |  |  |
|   | c. have not been made; however, the time limit for making such amendments has NOT expired.  |   |  |  |  |  |  |  |  |
|   | d. Light have not been made and v   |   |  |  |  |  |  |  |  |
| 8. L.J  |   | e amendments to the claims under PCT Arti       | de 19 (35 U.S.C. 371(c)(3)).                       |  |  |  |  |  |  |
| 9. <b>X</b>   | An oath or declaration of the inventor  |   | naminatión Danad under DOT                         |  |  |  |  |  |  |
| 10  | Article 36 (35 U.S.C. 371(c)(5)).   | e annexes of the International Preliminary Ex   | camination Report under PC1                        |  |  |  |  |  |  |
| Items   | 11 to 20 below concern document(s   | ) or information included:                      |  |  |  |  |  |  |  |
| 11. 🛮   | An Information Disclosure Statement   | under 37 CFR 1.97 and 1.98.                     |  |  |  |  |  |  |  |
| 12. 🗶   | An assignment document for recording  | ng. A separate cover sheet in compliance wit    | h 37 CFR 3.28 and 3.31 is included.                |  |  |  |  |  |  |
| 13. 🛛   | A preliminary amendment.  |   |  |  |  |  |  |  |  |
| 14.   | An Application Data Sheet under 37 C  | OFR 1.76.                                       |  |  |  |  |  |  |  |
| 15.   | A substitute specification.   |   |  |  |  |  |  |  |  |
| 16.   | A power of attorney and/or change of  | address letter.                                 |  |  |  |  |  |  |  |
| 17.   | A computer-readable form of the sequ  | uence listing in accordance with PCT Rule 13    | 3 <i>ter.</i> 2 and 37 CFR 1.821- 1.825.           |  |  |  |  |  |  |
| 18.   | A second copy of the published Intern   | national Application under 35 U.S.C. 154(d)(4   | 4).  |  |  |  |  |  |  |
| 19.   | A second copy of the English language   | ge translation of the international application | under 35 U.S.C. 154(d)(4).                         |  |  |  |  |  |  |

This collection of information is required by 37 CFR 1.414 and 1.491-1.492. The information is required to obtain or retain a benefit by the public, which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 16 minutes to complete, including gathering information, preparing, and submitting the completed form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop PCT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

| 30 - 100 = Surcharge of \$ after the date of CLAIMS Total claim Independent c MULTIPLE DE Applicant Processing fee claimed priority  | \$130.00 for furnishing of commencement of S NUMB ms 26 claims 3 EPENDENT CLAIM(S claims small entity stee of \$130.00 for furnity date (37 CFR 1.49)                                      | thereof (round up g any of the search f the national stage BER FILED 3 - 20 = - 3 = 5) (if applicable) tatus. See 37 CFR shing the English trace 2(i)). | to a whole number)  O  fee, examination fee, or the (37 CFR 1.492(h)).  NUMBER EXTRA  6  O  TOTAL OF ABOVE 1.27. Fees above are reduct anslation later than 30 mont  TOTAL .21(h)). The assignment mulii.0.00 per property   | RATE  x \$ 50  x \$200  + \$360  CALCULATIONS = 200  200 by 1/2.  SUBTOTAL = 100  this from the earliest + 100  NATIONAL FEE = 100                      | \$ 0 \$ 300 \$ 300 \$ 0 \$ 40 \$ 40 \$ Amount to be refunded: | \$                     |
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| otal Sheets  |  | thereof (round up   |  |   | _   |                        |
| The fe   | 1  | Ithough an ad an about  | dditional 50 or fraction   | RATE  |   |                        |
| Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing in compliance with 37 CFR 1.821(c) or (e) or computer program listing in an electronic medium) (37 CFR 1.492(j)).  The fee is \$250 for each additional 50 sheets of paper or fraction thereof. |  |   |  |   |   |                        |
| Additional   | TOTAL OF 21, 2   | 2 and 23 =  | in naner over 100 sheets to  | veludino  | 1,000   |                        |
| the written o<br>IPEA/I<br>earch fee (37<br>International S<br>previou   | US indicates all clain<br>7 CFR 1.445(a)(2)) h<br>ational Searching Au<br>Search Report prepar<br>usly communicated to   | or the International ns satisfy provisions as been paid on the athorityred by an ISA other to the US by the IB  | I preliminary examination reps of PCT Article 33(1)-(4)e international application to than the US and provided to  |   | <b>\$</b> 500   |                        |
| If the written opinion prepared by ISA/US or the international preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4)\$0  All other situations  |  |   |  |   | \$<br>200   |                        |
| 22. X Ex   | kamination fee (37 C   | FR 1.492(c))  |  |   |   | <u> </u>               |
| 1. 🛛 B   |  |   |  |   | \$ 300  |                        |
| The  | following fees have t  | een submitted   |  | CALCULATIONS PTO USE ONLY   |   |                        |
|  | ner items or informati<br>International Sc   |   |  |   |   |                        |
|  |  |   | PC1/FR2004/0   | 01796   | Serie 6296  |                        |
| U.S. APPLIC  | LICATIONNO. (I knows), see 37-CFR 1.5) INTERNATIONAL APPLICATION NO. PCT/FR2004/001798   |   |  |   | ATTORNEY'S DOCKET NUMBER                                      |                        |
|  | Under the Paperwork R  | teduction Act of 1995,  | no persons are required to resp  |   | ademark Office; U.S. DEPAF                                    | RTMENT OF COMMERC      |
|  |  |   |  |   | Approved for use through 3                                    | /31/2007. OMB 0651-00: |
|  |  |   |  | IAP15R  | ec'd PCT/PTO  | 28 DEC 2               |

| •  | 10/56252<br>!AP15 Rec'd PCT/PTO 28 DEC 200<br>PTO-1380 (Rev. 07-2005)<br>Approved for use through 3/31/2007. OMB 0851-0021  | 21 |  |  |  |  |  |
|--|---|----|--|--|--|--|--|
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| a. 🔲   | A check in the amount of \$ to cover the above fees is enclosed.  |    |  |  |  |  |  |
| ь. 🔀   | Please charge my Deposit Account No. <u>01-1375</u> in the amount of \$ \$1,340.00 to cover the above fees. A duplicate copy of this sheet is enclosed.   |    |  |  |  |  |  |
| c. 🛚   | The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 01-1375. A duplicate copy of this sheet is enclosed.                          |    |  |  |  |  |  |
| d. 🗆   | Fees are to be charged to a credit card. WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038. |    |  |  |  |  |  |
| NOTE: Where an appropriate time limit under 37 CFR 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the international Application to pending status. |   |    |  |  |  |  |  |
| SEND A   | Inda K. Russell P Dept. In Liquide 700 Post Oak Blvd., Suite 1800 Ouston, TX 77056  Signature Linda K. Russell NAME 34,918 REGISTRATION NUMBER  |    |  |  |  |  |  |

## 10/562521 IAP15 Rec'd PCT/PTO 28 DEC 2005

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.:

Not yet assigned

Applicants:

Gregory ETCHEGOYEN, et al.

Filed Internationally:

July 8, 2004

US National:

Herewith

Title:

PEROVSKITE MATERIAL, PREPARATION METHOD, AND

USE IN A CATALYTIC MEMBRANE REACTOR

TC/A.U:

Unknown

Examiner:

Unknown

Docket No.:

Serie 6296

Customer No.:

000040582

## CERTIFICATE OF MAILING BY EXPRESS MAIL

Mail Stop Patent Application Commissioner for Patents P. O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

I hereby certify that the following documents, which are attached, are being deposited, under 37 CFR 1.10, with the United States Postal Service "Express Mail Post Office to Addressee" service as **Express Mail No. EV 534768440 US** in an envelope addressed to: Mail Stop Patent Application, Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450, on **December 28, 2005**.

- 1. A copy of International Publication WO 2005/007595;
- 2. English translation of International Application PCT/FR2004/001798;
- 3. Declaration and Power of Attorney;
- Assignment and cover sheet;
- 5. Preliminary Amendment;
- 6. IDS and Form 1449, including search report with 7 references;
- 7. Transmittal Under 35 USC 371 (PTO Form 1390) Fee Sheet (in duplicate); and
- 8. Postcard.

Respectfully submitted,

Date: December 28, 2005

Air Liquide 2700 Post Oak Boulevard, Suite 1800 Houston, Texas 77056 (713) 624-8973